PART Performance Measures

Type of Program: Research & Deve
Name of Program: Earth Science Applications
Program ID:
Agency: National Aeronautics and Space Administration
Bureau:
Budget Year: 2005

Measure #	Measure Term	Measure Type	Measure	Explanation of Measure (if necessary)	Target Year	Target	Actual	Print in budget volume?	Measure New or Under Dvlpmt?	Targets under dvlpmt?	Baseline under dvlpmt?
Example	Annual	Output	Percent of GDP estimates correct	This measure tracks BEA's performance in estimating GDP levels and growth rates. It is a rolling average of six measures of accuracy over three years.	2001	>80%	91%	B			
					2002	>82%		B			
					2003	>84%		B			
					2004	>85%					
1	Long-term	Output	By 2012, benchmark the assimilation of Earth system science research results from 20 observations and 5 model predictions into 12 operational decsion support tools with partner agencies and organizations (USDA, DOT, DOE, EPA, DoD, USGS, FEMA, NOAA) to serve national priorities. (1.2)								
2	Long-term	Output	By 2012, benchmark the assimilation of observations (geophysical parameters, climate data records) provided from 20 of the 80 remote sensing systems deployed on the flotilla of 26 NASA Earth observation research satellites. (1.2.1)								
3	Long-term	Output	By 2012, benchmark the assimilation of 5 specific types of predictions resulting from Earth Science Model Framework (ESMF) of 22 NASA Earth system science models. (1.2.2)								

4	Long-term	Output	By 2012, benchmark the assimilation of observations and predictions resulting from NASA Earth Science research in 12 decision support systems serving national priorities and the missions of federal agencies. (1.2.3)						
5	Annual	Output	National applications: Benchmark measurable enhancements to at least 2 national decision support systems using NASA results, including the use of optical depth derived from MODIS data into the Air Quality Index provided by EPA and the use of ocean height Derived from Topex and Jason missions into reservoir monitoring tools with USDA. (4ESA1: Outcome 1.2.1, 1.2.3)						
6	Annual	Output	Cross Cutting Solutions: Expand DEVELOP (Digital Earth Virtual Environment and Learning Outreach Project) workforce development program to at least 5 additional states and benchmark the use of NASA research results for water and energy decision support tools. (4ESA2: Outcome 1.2.1, 1.2.2, 1.2.3)						
7	Annual	Output	Cross Cutting Solutions: Competitively select at least 5 solutions projects for the Research, Education, Applications solutions Network (REASoN) program to serve national applications through projects that support agriculture, public health and water quality decision support tools. (4ESA3: Outcome 1.2.1, 1.2.2, 1.2.3)						
8	Annual	Output	Cross Cut Solutions: Verify and validate at least two commercial remote sensing sources/products for Earth science research including DigitalGlobe Quicksat and OrbImage Overview 3 high resolutions optical imagery. (4ESA4: Outcome 1.2.1)						

9	Long-term	Output	By 2012, in partnership with the Department of Homeland Security, the Department of Defense, and the Department of State, deliver 15 observations and 5 model predictions for climate change, weather prediction and natural hazards to 5 national and 5 global organizations and decision-makers to evaluate 5 scenarios and optimize the use of Earth resources (food, water, energy, etc.) for homeland security, environmental security and economic security. (3.1.3)							
10	Annual	Output	Benchmark the use of observations from 5 remote sensing systems of the 80 research sensors deployed on the flotilla of 26 NASA satellites to serve decision support to national interests in homeland security and international environmental and economic security. (4ESA5)							
11	Annual	Output	Benchmark the use of predictions from 2 NASA Earth system science models for use in national priorities, including the President's initiative of illegal logging within the CARPE program and maritime use of ocean predictions with the Navy. (4ESA6)							
12	Annual	Output	Benchmark the use of observations and predictions of Earth science research results in 2 scenario assessment tools used by the Department of Energy and USDA associated with energy production and carbon management. (4ESA7)							
13	Long-term	Output	Engage the public in NASA's scientific exploration of Earth from space. (7.2.2)							